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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,023	04/20/2005	Kazuya Mackawa	APA-0220	6143
23353 7590 11/27/2007 RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036			EXAMINER DEXTER, CLARK F	
			ART UNIT 3724	PAPER NUMBER
			MAIL DATE 11/27/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/532,023

Applicant(s)

MAEKAWA ET AL.

Examiner

Clark F. Dexter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/20/05: 9/14/06
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election without traverse of Group I (claims 1-2) in the reply filed on August 9, 2007 is acknowledged. Claims 3-4 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention.

### ***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

3. The information disclosure statements filed on April 20, 2005 and September 14, 2006 have been received and the references listed thereon have been considered.

### ***Drawings***

4. The drawings are objected to because of the following informalities:

In Figure 2(b), numeral 10 should be added for clarity.

In Figure 2(c), since both features 11 and 12 form feature 10, "12(10)" should be changed to --12-- for clarity.

In Figure 4, since both features 111 and 121 form feature 101, "121(101)" should be changed to --121-- for clarity.

In Figure 5, since both features 112 and 122 form feature 102, "122(102)" should be changed to --122-- for clarity.

In Figure 6, since both features 113 and 123 form feature 103, "123(103)" should be changed to --123-- for clarity.

In Figures 7, 8 and 10, --G-- should be added for clarity.

In Figure 13, " G' " should be changed to --G-- for clarity since there is no difference in the glass sheet per se.

Figures 26-29 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Abstract***

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

6. The abstract of the disclosure is objected to because of the use of "means" in lines 6 and 11. Correction is required. See MPEP § 608.01(b).

### ***Specification***

7. The disclosure is objected to because of the following informalities:

On page 8, line 4, "FIG. 2 shows" is inaccurate and unclear since there is no Fig. 2, and it is suggested to change it to --FIGS. 2(a) to 2(c)-- or the like.

On page 11, line 6, "8" is inaccurate, and it is suggested to change "8(8A)" to --8A-- for clarity; in line 6, "FIG. 2 is" is inaccurate and unclear since there is no Fig. 2, and it is suggested to change "show in FIG. 2 is of the type that applies" to -- show in

~~FIG. 2~~ shown in FIGS. 2(a) to 2(c) is ~~[[of]]~~ the type of cutter wheel 8 that applies-- or the like; in lines 8, 10, 19, 22 and 30, "8" is inaccurate, and it is suggested to change it to --8A-- for clarity; in line 13, "ridge" is unclear, and it seems that it should be changed to --edge-- or the like for clarity; in lines 16-17, the recitation "a protrusion number of 125" is unclear as to what is being described; in line 18, --G-- should be inserted after "glass sheet" for clarity.

On page 12, lines 12, 16 and 20, "ridge" is unclear, and it seems that it should be changed to --edge-- or the like for clarity.

On page 17, line 14, --G-- should be inserted after "glass sheet" for clarity; in line 25, " G' " should be changed to --G-- for clarity since there is no difference in the glass sheet per se; in lines 26 and 28, --8-- should be inserted after "cutter wheel" for clarity.

On page 18, lines 10, 11, 17, 18 and 21, --8-- should be inserted after "cutter wheel" for clarity.

On page 19, lines 1 and 2, --8-- should be inserted after "cutter wheel" for clarity.  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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9. Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by any one of Shimotoyodome, pn 6,460,258, pn 6,470,782, pn 6,478,206 (hereafter the Shimotoyodome patents).

The Shimotoyodome patents each discloses a scribe apparatus with every structural limitation of the claimed invention including:

a scribe means for generating a high-penetration vertical crack in the brittle material substrate by applying impacts of a short period to the point on the surface of the brittle material substrate; and

a travel motion control means (e.g., the moving mechanism that causes vertical movement of the scribe means) for letting the scribe means travel while avoiding scribe lines formed in the first direction when forming the at least one scribe line of the second direction with the scribe means.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is

advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over any one of Shimotoyodome, pn 6,460,258, pn 6,470,782, pn 6,478,206 (hereafter the Shimotoyodome patents).

The Shimotoyodome patents each discloses a scribe device for forming scribe lines on a brittle material, but lacks a disclosure of the specific method steps for forming a specific desired pattern or scribe line configuration including:

a plurality of scribe lines are formed in directions intersecting with one another in a surface of the brittle material substrate,

wherein, after forming at least one scribe line in a first direction by a scribe means generating a high-penetration vertical crack in the brittle material substrate by applying impacts of a short period to the point on the surface of the brittle material substrate, at least one scribe line of a second direction along a direction intersecting with the at least one scribe line of the first direction is formed with the scribe means by scribing without producing intersections with the scribe line(s) of the first direction.

However, it is respectfully submitted that the above method steps describe any scribe line configuration wherein multiple lines, which do not intersect one another, are provided on the brittle material. However, it is old and well known in the art to provide



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such multiple lines on a brittle material for various known reasons including providing multiple breaking lines to create various shapes of brittle material products. Therefore, it would have been obvious to one having ordinary skill in the art to provide such a scribe line configuration on a brittle material for the well known benefits including those described above.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clark F. Dexter whose telephone number is (571)272-4505. The examiner can normally be reached on Mondays, Tuesdays, Thursdays and Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571)272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**Clark F. Dexter**  
**Primary Examiner**  
**Art Unit 3724**

cfd  
November 13, 2007